

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-15 and 22-36 are pending. Applicant notes that the Office Action Summary indicates claims 1-15 and 23-36 are pending in the application. However, the Detailed Action correctly indicates that claims 1-15 and 22-36 are rejected. Applicant respectfully requests that future communications also indicate that claim 22 is pending in the application.

Applicant's remarks after Final are appropriate under 37 C.F.R. §1.116 because they address the Office's remarks in the Final Action, and thus could not have been presented earlier. In addition, the remarks should be entered to place the case in better form for appeal.

35 U.S.C. §103 Claim Rejections

Claims 1-15 and 22-36 are rejected under 35 U.S.C. §103(a) for obviousness over U.S. Patent No. 6,012,083 to Savitzky et al. (hereinafter, "Savitzky"), in view of a document entitled "Java Developer's Guide" (1996) to Jaworski (hereinafter, "Jaworski") (*Office Action* p.2).

Savitzky describes a third-party "agency" computing system that is interposed between a Web client and a Web server to interact with the client and the server to transfer documents (col.3, lines 32-37). The Web client and the Web server communicate documents via the agency with HTTP (hypertext transfer protocol) over a communication channel, such as the Internet (col.5, lines 6-12).

Savitzky refers to applets, stating that "client-side code execution is limited to documents in which a server has included applets and is limited to use with

1 applet-aware browsers" (col.2, lines 41-43). This is essentially described in the
2 "Background" section of Applicant's Specification and is an example of the very
3 prior art that Applicant sought to overcome. Applets, by their very nature, raise
4 security issues for local computer systems. In general, computer programs can be
5 configured to cause harm to the local computer system (*Specification* p.2, lines
6 24-26). Applet viewers prevent harm from execution of an applet. For example,
7 applets are prevented by an applet viewer from writing data to any persistent
8 storage, thus protecting current contents of the persistent storage (*Specification*
9 p.3, lines 2-7). A disadvantage of the isolation of applets is that other computer
10 processes executing concurrently with and independently of the applet viewer
11 cannot communicate with the applets (*Specification* p.3, line 28 to p.4, line 1).

12 Jaworski describes a Web server program that receives a request from a
13 Web browser (i.e., a *GET* method), locates a specified resource, and returns the
14 requested resource data to the browser (*A Web Server*, p.521). Jaworski provides
15 an example of how to implement and test the simple Web server program
16 (*WebServerApp*) to receive a request and return a file or document (pp. 521-526).

17 Contrary to Savitzky and Jaworski, Applicant describes and claims
18 receiving a request for a document from an applet, where the request specifies a
19 function, the execution of which performs a task that is unrelated to both
20 generation and retrieval of any document specified in the request (*see* claim 1, for
21 example). Applicant describes an interprocess communication mechanism in
22 which applets can receive and respond to processing requests of other computer
23 processes, and which can send processing requests to such other computer
24 processes without requiring modification of applet viewers. Additionally,
25 computer system security is preserved with interprocess communication because

1 an applet is denied direct access to computer system resources. (*Specification* p.5,
2 lines 24-25).

3
4 Claim 1 recites a method for serving remote procedure calls from an
5 applet which executes within an applet viewer which in turn executes in a
6 computer system that is serving said remote procedure calls, the method
7 comprising:

8 receiving from the applet which executes in the same computer
9 system that serves said remote procedure calls, a request for a document
10 according to a document retrieval protocol implemented on a computer
11 network;

12 determining that the request specifies a function which is defined
13 within a computer process executing independently of the applet and applet
14 viewer and which includes one or more computer instructions; execution of
15 which performs a task which is unrelated to both generation and retrieval of
16 any document specified in the request; and

17 executing the function in the same computer system that is executing
18 said applet and applet viewer to thereby cause execution of the one or more
19 computer instructions in response to receipt of the request.

20 Savitzky and/or Jaworski do not teach or suggest the combination of
21 elements recited in claim 1. The Office recognizes that Savitzky describes a client
22 and server system that communicates information between the systems and does
23 not teach the combination of elements recited in claim 1 in a "same computer
24 system" environment (*Office Action* pp.2-3). Furthermore, Savitzky does not
25 teach or suggest both a request for a document *and* "determining that the request
specifies a function..., execution of which performs a task which is unrelated to
both generation and retrieval of any document specified in the request", as recited
in claim 1.

The Office relies on Savitzky at col.1, line 63 to col.2, line 43 to reject

1 claim 1 (*Office Action* p.2). Applicant disagrees because the cited section of
2 Savitzky describes examples of server-client communications that teach away
3 from Applicant's claim 1. For example, the Office states that Savitzky describes a
4 client sending a document request to a server for a document in the form of a URL
5 to execute a script that that is defined in a program on the server (*Savitzky* col.2,
6 lines 1-5). However, the Office disregards that Savitzky continues the description
7 with "[t]he server generates a document in accordance with the program and
8 returns that document to the browser." (*Savitzky* col.2, lines 5-7). This is
9 expressly contrary to the execution of a function "which performs a task which is
10 *unrelated* to both generation and retrieval of any document specified in the
11 request", as recited in claim 1. To return a document to a client browser, the
12 document request of Savitzky is related to the retrieval of the document.

13 With regards to "applets", Savitzky describes that "[w]ith client-side code
14 execution, the client requests a document and the returned document contains
15 program code embedded in the document ..." which can be used for such tasks as
16 animating graphic elements of a document (*Savitzky* col.2, lines 25-31). This is
17 also expressly contrary to "a request for a document" and "determining that the
18 request specifies a function..., execution of which performs a task which is
19 *unrelated* to both generation and retrieval of any document specified in the
20 request", as positively recited in claim 1.

21 The Office recognizes that Savitzky is deficient when stating that "it is
22 inherent that the script has instructions that are thereby executed when invoked in
23 order to generate the document" (*Office Action* p.2). Accordingly, Savitzky is
24 contrary and teaches away from the execution of a function "which performs a
25 task which is *unrelated* to both generation and retrieval of any document", as

1 recited in claim 1.

2 Further, the Office recognizes that Savitzky does not request a document
3 according to a document retrieval protocol, as recited in claim 1. The Office states
4 that "it is also inherent that since the request [in Savitzky] is a request to execute a
5 script and *not a request for a document*, that the request is unrelated to any
6 generation or retrieval of a document" (*Office Action* p.2). Applicant disagrees
7 that generating a document in Savitzky is unrelated to the retrieval of the
8 document, as the Office contends. Savitzky clearly describes that "the server
9 generates a document in accordance with the program and returns that document
10 to the browser" (*Savitzky* col.2, lines 5-7), and that with applets, the client requests
11 a document and the returned document contains program code embedded in the
12 document" (*Savitzky* col.2, lines 25-27). Further, "client-side code execution is
13 limited to documents in which a server has included applets" (*Savitzky* col.2, lines
14 25-27).

15 Accordingly, for the many reasons described above, claim 1 along with
16 dependent claims 2-5 and 22 are allowable over the Savitzky-Jaworski
17 combination and the §103 rejection should be withdrawn.

18 Jaworski also does not teach both a request for a document *and*
19 "determining that the request specifies a function..., execution of which performs
20 a task which is unrelated to both generation and retrieval of any document
21 specified in the request", as recited in claim 1. To the contrary, Jaworski describes
22 a Web server program that receives a request from a Web browser (i.e., a *GET*
23 method), locates a specified resource, and returns the requested resource data to
24 the browser (*A Web Server*, p.521). Jaworski further describes how to implement
25 and test the Web server program (*WebServerApp*) to receive a request and return a

1 file or document (pp. 521-526).

2 Accordingly, for these additional reasons, claim 1 along with dependent
3 claims 2-5 and 22 are allowable over the Savitzky-Jaworski combination, and
4 Applicant respectfully requests that the §103 rejection be withdrawn.

5
6 In the Response to Arguments (*Office Action* p.9), the Office maintains the
7 rejection based on Applicant's disclosure which describes "the processing of a
8 document request by receiving the request, producing the document, and sending
9 back the document being executed by the HTTP server (explicitly at page 10, lines
10 4-8)." (*Office Action* p.10). However, the Office disregards that this particular
11 section of Applicant's disclosure describes that the HTTP server "processes the
12 URL in a conventional manner" (*Specification* p.10, line 6). The Office also
13 disregards lines 2-3 which describe that if "the received URL is an RPC request,
14 processing transfers to step 410 (Figure 4)", the description of which begins at
15 page 10, line 9. Applicant's disclosure continues to describe that if the received
16 URL is an RPC request (i.e., non-conventional) then the URL is parsed into the
17 RPC request (*Specification* p.10, lines 9-11).

18 An example of a URL representing an RPC request is provided on page 10,
19 line 16 of the *Specification*. The "'http' indicates that URL specifies a document
20 to be retrieved according to HTTP" (*Specification* p.10, lines 19-20). The URL
21 identifies a computer system to which the URL is directed, and the remainder of
22 the URL specifies an RPC function and provides arguments as inputs to the
23 specified RPC function (*Specification* p.10, line 25 to p.11, line 2).

24 The Office requests Applicant to provide support in the *Specification* that
25 the function is unrelated to both the generation and retrieval of any document

1 specified – no support can be found that the function is unrelated to the generation
2 of the document, and what the function is considered to be (*Office Action* p.11).
3 Applicant describes that execution of the RPC function specified in the URL is
4 invoked where the arguments are parsed and input to the RPC function. As a
5 result, the identified RPC function performs the task requested by the applet
6 (*Specification* p.11, lines 20-28). Accordingly, the function specified in the
7 request performs a task which is unrelated to generation and retrieval of a
8 document specified according to a document retrieval protocol, as recited in
9 claim 1. Further, the function can be a processing request from an independently
10 executing computer process, a task incorporated into a larger task or RPC process
11 performed by an applet, and the like (*Specification* p.5, lines 26-28; p.8, lines
12 20-23).

13
14 Claim 6 recites “receiving from the applet ... a request for a document”,
15 and “determining that the request specifies a function which is defined within a
16 computer process executing independently of the applet and applet viewer and
17 which includes one or more selected computer instructions, execution of which
18 performs a task which is unrelated to both generation and retrieval of any
19 document specified in the request.”

20 As described above in the response to the rejection of claim 1, Savitzky
21 and/or Jaworski do not teach or suggest both a request for a document *and*
22 “determining that the request specifies a function which is defined within a
23 computer process executing independently of the applet and applet viewer...,
24 execution of which performs a task which is unrelated to both generation and
25 retrieval of any document specified in the request”, as recited in claim 6.

1 Accordingly, claim 6 along with dependent claims 7-10 are allowable over
2 the Savitzky-Jaworski combination and the §103 rejection should be withdrawn.
3

4 Claim 11 recites "receiving from the applet ... a request for a document"
5 and "determining that the request specifies a function which is defined within the
6 computer process and which includes one or more computer instructions,
7 execution of which performs a task which is unrelated to both generation and
8 retrieval of any document specified in the request."

9 As described above in the response to the rejection of claim 1, Savitzky
10 and/or Jaworski do not teach or suggest both a request for a document *and*
11 "determining that the request specifies a function which is defined within the
12 computer process and which includes one or more computer instructions,
13 execution of which performs a task which is unrelated to both generation and
14 retrieval of any document specified in the request", as recited in claim 11.

15 Accordingly, claim 11 along with dependent claims 12-15 are allowable
16 over the Savitzky-Jaworski combination and the §103 rejection should be
17 withdrawn.
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1 Claim 23 recites a method for serving remote procedure calls
2 received from an instruction set that executes within a first computer
3 process, the first computer process executing in a computing device that
4 serves the remote procedure calls, the method comprising:

5 receiving a request for a data file from the instruction set, the request
6 according to a data file retrieval protocol;

7 determining that the request for the data file specifies a function
8 which is defined within a second computer process executing in the
9 computing device independently of the instruction set and of the first
10 computer process, the function including one or more computer
11 instructions, execution of which performs a task which is unrelated to both
12 generation and retrieval of any data file specified in the request; and

13 executing the function in the computing device to execute the one or
14 more computer instructions in response to receipt of the request.

15 Savitzky and/or Jaworski do not teach or suggest the combination of
16 elements recited in claim 23 in a single computing device environment. Neither
17 Savitzky nor Jaworski teach both a request for a data file *and* "determining that the
18 request for the data file specifies a function..., execution of which performs a task
19 which is unrelated to both generation and retrieval of any data file specified in the
20 request", as recited in claim 23.

21 Similar to the rejection of claim 1, the Office contends that Savitzky
22 teaches the elements of claim 23 (*Office Action* p.5). As described above in the
23 response to the rejection of claim 1, Savitzky describes examples of server-client
24 communications that teach away from the elements recited in claim 23. For
25 example, Savitzky describes a client sending a document request to a server for a
document in the form of a URL that refers to a program on the server. The
program generates the document and the server returns the document to the
browser (*Savitzky* col.2, lines 1-7). This is expressly contrary to the execution of a

1 function "which performs a task which is *unrelated* to both generation and
2 retrieval of any data file specified in the request", as recited in claim 23.

3 The Office recognizes that Savitzky is deficient when stating that "it is
4 inherent that the script has instructions that are thereby executed when invoked in
5 order to *generate the document*" (*Office Action* p.5). Accordingly, Savitzky does
6 not describe receiving a request for a document and performing a task which is
7 unrelated to the retrieval of any document, as recited in claim 1.

8 Further, the Office recognizes that Savitzky does not request a document
9 according to a document retrieval protocol, as recited in claim 1. The Office states
10 that "it is also inherent that since the request [in Savitzky] is a request to execute a
11 script and *not a request for a document*, that the request is unrelated to any
12 generation or retrieval of a document" (*Office Action* p.5).

13 Accordingly, claim 23 along with dependent claims 24-27 are allowable
14 over the Savitzky-Jaworski combination and Applicant respectfully requests that
15 the §103 rejection be withdrawn.

16
17 Claim 28 recites "receiving a request for a data file" and "determining that
18 the request for the data file specifies a function..., execution of which performs a
19 task which is unrelated to both generation and retrieval of any data file specified in
20 the request".

21 As described above in the response to the rejection of claim 23, Savitzky
22 and/or Jaworski do not teach or suggest both a request for a data file *and*
23 "determining that the request for the data file specifies a function..., execution of
24 which performs a task which is unrelated to both generation and retrieval of any
25 data file specified in the request", as recited in claim 28.

1 Accordingly, claim 28 along with dependent claims 29-32 are allowable
2 over the Savitzky-Jaworski combination and the §103 rejection should be
3 withdrawn.

4
5 Claim 33 recites "receiving from the applet a request for a document
6 according to a document retrieval protocol implemented in the computer system",
7 and "determining that the request for the document specifies a function which is
8 defined within a computer process executing independently of the applet and the
9 applet viewer and which includes computer executable instructions that, when
10 executed, perform a task which is unrelated to both generation and retrieval of any
11 document."

12 As described above in the response to the rejection of claims 23 and 28,
13 Savitzky and/or Jaworski do not teach or suggest both a request for a document
14 and "determining that the request for the document specifies a function which...
15 includes computer executable instructions that, when executed, perform a task
16 which is unrelated to both generation and retrieval of any document", as recited in
17 claim 33.

18 Accordingly, claim 33 along with dependent claim 34 is allowable over the
19 Savitzky-Jaworski combination and the §103 rejection should be withdrawn.

20
21 Claim 35 recites a computer system comprising a computer process to
22 "receive from the applet a request for a document according to a document
23 retrieval protocol", and "determine that the request for the document specifies a
24 function which is defined within the computer process and which includes
25

1 computer executable instructions that, when executed, perform a task which is
2 unrelated to both generation and retrieval of any document."

3 As described above in the response to the rejection of claim 33, Savitzky
4 and/or Jaworski do not teach or suggest both a request for a document *and* to
5 "determine that the request for the document specifies a function which... includes
6 computer executable instructions that, when executed, perform a task which is
7 unrelated to both generation and retrieval of any document", as recited in
8 claim 35.

9 Accordingly, claim 35 along with dependent claim 36 is allowable over the
10 Savitzky-Jaworski combination and the §103 rejection should be withdrawn.

11
12 **Conclusion**

13 Pending claims 1-15 and 22-36 are in condition for allowance. Applicant
14 respectfully requests consideration and issuance of the subject application. If any
15 issues remain that preclude issuance of this application, the Examiner is urged to
16 contact the undersigned attorney before issuing a subsequent Action.

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18 Respectfully Submitted,

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20 Dated: Jan 26, 2004

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